ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

4

DRINKING WATER MEMORANDUM
WELL OWNER'S LOG

DATE: January 5, 1990

TO: State Contact STATE: Indiana

FROM: Jacqueline Lundberg

SUBJECT: Drinking Water Sample Results

SITE NAME: North Manchester Foundry CERCLA ID#: IND981952831

TDD: F05-8901-025 PAN: FIN0681SBW

NAME	ADDDRESS	CITY
[redacted]		

hits
no hits *
hits
hits
hit

E & E EDP DATE _____

State Contact:

Received By: _____

Date: _____

Note:
Return a signed copy to Tom Clyne at Ecology and Environment, Inc., within 5 working days. Thank you.

QA016(8/31/89)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

RW1
~120 Ft.

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10 - 10 - 89

Recipient Information: North Manchester Water Department
Name

407 E. Main Street
Street Address

North Manchester IN 46962
City State Zip Code

(219) 982-2993
Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number IND 981952831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-025; PAN: FIN06815B
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW1/EGL008/MEF254

Action Level

☐ No Contamination
No hits above any health-related standards.

☐ Low Level Contamination
Hits just above health-related standards.

☐ Significant Contamination
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

☑ Please check secondary maximum contamination limits for:

Aluminum	✓	Manganese	✓
Copper		Silver	
Iron	✓	Zinc	

Tom Clyne

Tom Clyne

RW 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10-10-89

Recipient Information: Manchester Vet Clinic
Name

Rt 1 Box 54
Street Address

North Manchester IN 46962
City State Zip Code

219 982-6673
Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number IND 981952831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-019 PAN: FIN06BKB
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW2/EGL09/MEF2 55

Action Level

☑ No Contamination
No hits above any health-related standards.

☐ Lov Level Contamination
Hits just above health-related standards.

☐ Significant Contamination
Hits are above health-related standards.

☐ Please check the folloving. They are less than health-related standards but above detection limits.

☐ Please check secondary maximum contamination limits for:

Aluminum		Manganese	
Copper		Silver	
Iron		Zinc	

QC 014

Sample: RW 2/EGL09 /MEFZ55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	CLP Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																	
Volatile Organics																	
CHLOROMETHANE	1.5				L	-	-	D	-	-	-	-	-	-	-	-	-
BROMOMETHANE	1.5				-	-	-	D	-	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1.5				P	-	ZERO 2	P	9000	9000	10	50	-	-	-	1.5	A
CHLOROETHANE	1.5				L	-	-	D	-	-	-	50	-	-	-	-	-
METHYLENE CHLORIDE	1	3			L	-	-	P	10000	2000	-	-	60	2000	-	300	B2
ACETONE	5																
CARBON DISULFIDE	2																
1,1-DICHLOROETHENE	1.5				P	-	7 7	P	2000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1.5				L	-	-	D	-	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1.5				P	-	70 70	P	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1.5				L	100	- -	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1.5				P	-	ZERO 5	P	700	700	700	2600	-	-	-	40	B2
2-BUTANONE (MEK)	5				-	-	- -	P	80000	8000	3000	9000	50	900	200	-	D
1,1,1-TRICHLOROETHANE	1.5				P	-	200 200	P	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1.5				P	-	ZERO 5	P	4000	200	70	300	0.7	30	-	30	B2
VINYL ACETATE	5																
BROMODICHLOROMETHANE	1.5				L	100	- -	D	-	-	-	-	2	-	-	-	-
1,2-DICHLOROPROPANE	1.5				P	-	ZERO 5	P	-	90	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	2				L	-	- -	P	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1.5				P	-	ZERO 5	P	-	-	-	-	7	300	-	300	B2
DIBROMOCHLOROMETHANE	1.5				L	100	- -	D	-	-	-	-	2	-	-	-	-
1,1,2-TRICHLOROETHANE	1.5				-	-	- -	D	-	-	-	-	30	-	-	-	-
BENZENE	1.5				P	-	ZERO 5	P	200	200	-	-	-	-	-	100	A

DATA Report
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Sample: RW2/EGL09/MEF8 55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 61, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: NJDWQ Reg. A	Standards: NJDWQ MCLG (ug/L)	Standards: NJDWQ MCL (ug/L)	NJDWQ MA A	10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	Health Advisories: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: LIFETIME (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CONTRACT REQUIRED																	
Volatile Organics (cont)																	
TRANS-1,3-DICHLOROPROPENE	1				L	-	-	E	30	30	30	100	0.3	10	-	20	B2
BROMOFORM	1.5				L	100	-	B	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1.5																
2-HEXANONE	5																
TETRACHLOROETHENE	1.5				P	-	ZERO	5	E	2000	2000	1000	5000	10	500	-	70	B2
TOLUENE	1.5			40 ϕ	P	-	2000	2000	E	20000	3000	3000	10000	300	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1.5				L	-	-	-	B	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1.5			100 ϕ	P	-	100	100	E	2000	2000	2000	2000	20	700	100	-	D
ETHYLBENZENE	1.5			30 ϕ	P	-	700	700	E	30000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10 ϕ	P	-	ZERO	5	E	20000	2000	2000	7000	200	7000	-	1	B2
XYLENES (TOTAL)	1.5			20 ϕ	P	-	10000	10000	E	40000	40000	40000	10000	2000	60000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1.5																
ACROLEIN	25																
ACRYLONITRILE	25				L	-	-	-	-	-	-	-	-	-	-	-	-

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Sample: RW 2 /EGL09 /MEFZ 55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	CAPL at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Semivolatile Organics																		
PHENOL	2				-	-	-	-	D	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1.5																	
2-CHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	5	200	-	-	-
1,3-DICHLOROBENZENE	2				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
1,4-DICHLOROBENZENE	2				F	-	75	75	F	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	2																	
1,2-DICHLOROBENZENE	2.5				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
2-METHYLPHENOL	1																	
N-NITROSO-DI-N-DIPROPYLAMINE	1.5																	
HEXACHLOROETHANE	2																	
NITROBENZENE	2.5																	
ISOPHORONE	2.5				L	-	-	-	D	-	-	-	-	150	-	-	-	-
2-NITROPHENOL	2																	
2,4-DIMETHYLPHENOL	2																	
BENZOIC ACID	20																	
BIS(2-CHLOROETHOXYL)METHANE	2.5																	
2,4-DICHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	2				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	2				-	-	-	-	D	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	2																	
HEXACHLOROBUTADIENE	2.5				-	-	-	-	D	-	-	-	-	2	-	-	5	C
4-CHLORO-3-METHYLPHENOL	1.5																	
2-METHYLNAPHTHALENE	2																	

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Sample: RW2 / EGL09 / MEFB55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Drinking Water A	Health Advisories: 10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	Longer-Term (ug/L)	RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Semivolatile Organics (cont)																	
HEXACHLOROCYCLOPENTADIENE	2				L	-	-	-	-	-	-	-	7	-	-	-	-
2,4,6-TRICHLOROPHENOL	1.5																
2,4,5-TRICHLOROPHENOL	1.5																
2-CHLORONAPHTHALENE	1.5																
2-NITROANILINE	1																
DIMETHYLPHTHALATE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	D
ACENAPHTHYLENE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-
2,6-DINITROTOLUENE	1																
3-NITROANILINE	2.5																
ACENAPHTHENE	1.5																
2,4-DINITROPHENOL	(15)																
4-NITROPHENOL	1.5																
DIBENZOFURAN	1																
2,4-DINITROTOLUENE	1				L	-	-	-	D	-	-	-	-	-	-	-	-
DIETHYLPHTHALATE	1				-	-	-	-	D	-	-	-	-	800	-	-	D
4-CHLOROPHENYL-PHENYLETHER	1																
FLUORENE	1								L	-	-	-	-	-	-	-	D
4-NITROANILINE	2																
4,6-DINITRO-2-METHYLPHENOL	(15)																
N-NITROSODIPHENYLAMINE A																	
DIPHENYLAMINE A	1.5																
4-BROMOPHENYL-PHENYLETHER	1.5																
HEXACHLOROBENZENE	1.5				-	-	-	-	F	50	50	50	200	0.8	30	-	2	B2

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Sample: RW 2 1EGL09 /MEF255

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MTBDR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status MA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CONTINUED DETECTION																		
Semivolatile Organics (cont)																		
PENTACHLOROPHENOL	2			30 #	P	-	200	200	P	1000	300	300	1000	30	1000	200	-	B
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-	-
ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
DI-N-BUTYLPHTHALATE	2				L	-	-	-	-	-	-	-	-	100	-	-	-	D
FLUORANTHENE	1.5																	
PYRENE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
BUTYLBENZYLPHTHALATE	3.5				L	-	-	-	-	-	-	-	-	200	-	-	-	C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
CHRYSENE AA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	D	-	-	-	-	20	-	-	-	B2
DI-N-OCTYLPHTHALATE	1.5																	
BENZO(B)FLUORANTHENE AAA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(K)FLUORANTHENE AAA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(A)PYRENE	2				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
INDENO(1,2,3-C,D)PYRENE	3.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
DIBENZO(A,H)ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-	D
4-METHYLPHENOL	1																	
BIS(2-CHLOROISOPROPYL)ETHER	2.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
AMILINE	1.5																	
1,2-DIPHENYLHYDRAZINE	1																	

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Sample: RW 2 / EGL09 / MEFZ55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Status Reg. A	Standards NIPDWR (ug/L)	Standards MCLG (ug/L)	Standards MCL (ug/L)	Status HA A	Health Advisories 10-kg Child 1-Day (ug/L)	Health Advisories 10-kg Child 10-Day (ug/L)	Health Advisories 10-kg Child Longer-Term (ug/L)	Health Advisories Longer-Term (ug/L)	Health Advisories RfD (ug/kg/day)	Health Advisories 70-kg Adult DWEL (ug/L)	Health Advisories Lifetime (ug/L)	Health Advisories ug/L at 10-4 Cancer Risk	Cancer Group
CONTAMINANTS																		
Pesticide/PCBs																		
ALPHA BHC	(0.010)																	
BETA BHC	(0.005)																	
DELTA BHC	(0.005)																	
GAMMA BHC (LINDANE)	0.005				P	4	0.2	0.2	P	1000	1000	30	100	0.3	10	0.2	3	C
HEPTACHLOR	0.020				P	-	ZERO	0.4	P	10	10	5	5	0.5	20	-	0.8	B2
ALDRIN	0.005																	
HEPTACHLOR EPOXIDE	0.005				P	-	ZERO	0.2	P	10	-	0.1	0.1	0.013	0.1	-	0.1	B2
ENDOSULFAN I	0.010																	
DIELDRIN	0.010				L	-	-	-	P	0.5	0.5	0.5	2	0.05	2	-	0.2	B2
4,4'-DDE	(0.005)																	
ENDRIN	0.010				L	0.2	-	-	P	20	5	5	20	0.015	2	0.3	-	D
ENDOSULFAN II	0.010																	
4,4'-DDD	(0.020)																	
ENDOSULFAN SULFATE	(0.10)														-			
4,4'-DDT	0.020																	
METHOXYCHLOR (MARIATE)	0.020				P	100	100	100	P	6000	2000	500	2000	50	2000	100	-	D
ENDRIN ALDEHYDE	(0.030)																	
ENDRIN KETONE	(0.030)																	
CHLORDANE	(0.020)				P	-	ZERO	2	P	60	60	0.5	0.5	0.045	2	-	3	B2
ALPHA CHLORDANE	0.020																	
GAMMA CHLORDANE	0.020																	
TOXAPHENE	(0.25)				P	5	ZERO	5	P	500	10	-	-	100	-	-	3	B2
AROCLOR 1016	0.10				P	-	ZERO	0.5	P	-	-	1	1	-	-	-	0.5	B2

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Sample: RW2 /EGL09 /MEF255

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Section Reg. A	Standards MCLG (ug/L)	Standards MCL (ug/L)	Section HA A	Health Advisories 10-kg Child One-Day (ug/L)	Health Advisories 10-kg Child Ten-Day (ug/L)	Health Advisories 10-kg Child Longer-Term (ug/L)	Health Advisories Lifetime Cancer Risk (ug/L)	Health Advisories RfD (mg/kg/day)	Health Advisories 20-kg Adult DWEL (ug/L)	Health Advisories Effects	Health Advisories ug/L at 10-4 Cancer Risk	Cancer Group
CONTAMINANTS DETECTED																	
Pesticide/PCBs (cont)																	
AROCLOR 1221	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1232	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1242	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1248	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1254	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1260	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

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Sample: RW2 / EGL09 / MEFB55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-Kg Child: One-Day (ug/L)	10-Kg Child: Ten-Day (ug/L)	10-Kg Child: Longer-Term (ug/L)	Health Advisories: 70-Kg Adult: Longer-Term (ug/L)	70-Kg Adult: RfD (ug/kg/day)	70-Kg Adult: DWEL (ug/L)	70-Kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
INORGANICS																		
Analyte Detected Method																		
ALUMINUM P	100		34B	50 ℓ	L	-	-	-	D	-	-	-	-	-	-	-	-	-
ANTIMONY F	5				L	-	-	-	D	-	-	-	-	0.4	-	-	-	-
ARSENIC F	5				P	50	ZERO	50	D	-	-	-	-	1	-	50	3	A
BARIUM P	50				P	1000	5000	5000	P	5000	5000	5000	5000	-	-	5000	-	D
BERYLLIUM F	5				L	-	-	-	D	-	-	-	-	5	-	-	-	B2
CADMIUM F	0.2				P	10	5	5	P	10	10	5	20	0.5	20	5	-	D
CALCIUM P	1000	362 B	25.1 B															
CHROMIUM F	10				P	50	100	100	P	1000	1000	200	800	5	200	100	-	D
COBALT P	10																	
COPPER P	10	35.2 J*N	38.5JN	1000 ℓ														
IRON P	100	61.3 B		300 ℓ														
LEAD (at source) F	2				P	-	ZERO	5	-	-	-	-	-	-	-	-	-	-
LEAD (at tap) F	2	2.1			P	50	ZERO	TT	-	-	-	-	-	-	-	-	-	-
MAGNESIUM P	1000	99.9 B	14.7B															
MANGANESE P	10			50 ℓ	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY CV	0.2				P	2	2	2	P	-	-	-	-	0.3	10	2	-	D
NICKEL P	20				L	-	-	-	P	1000	1000	2000	600	20	600	200	-	D
POTASSIUM P	2000	1360 B																
SELENIUM F	2				P	10	50	50	-	-	-	-	-	-	-	-	-	-
SILVER P	5			50 ℓ	L	50	-	-	D	-	-	-	-	3	-	-	-	-
SODIUM P	1000	251000	240B		L	-	-	-	D	-	-	-	-	-	20000	-	-	-
THALLIUM F	2				L	-	-	-	D	-	-	-	-	0.07	-	-	-	-
TIN P	40																	

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Sample: RW2 /EGL09 /MEFB55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Status Req. A	Standards NIPDWR (ug/L)	Standards MCLG (ug/L)	Standards MCL (ug/L)	Status RA A	Health Advisories 1-Day=Day (ug/L)	Health Advisories 10-Day (ug/L)	Health Advisories Longer-Term (ug/L)	Health Advisories Longer-Term (ug/L)	Health Advisories RfD (ug/kg/day)	Health Advisories 70-kg Adult (ug/L)	Health Advisories Lifetime (ug/L)	Health Advisories ug/l at 10-4 Cancer Risk	Cancer Group
Analyte Detected (cont)																			
VANADIUM	P	10				L	-	-	-	D	-	-	-	-	20	-	-	-	-
ZINC	P	20	16 B	6.7 B	5000 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
CYANIDE	C	10				L	-	-	-	E	200	200	200	800	22	800	200	-	D
BORON	P	80																	
LITHIUM	P	10																	
MOLYBDENUM	P	15																	
TITANIUM	P	25																	
STRONTIUM	P	10																	
TIN	P	5																	

Detection Limits:
A These Two Parameters Are Reported As A Total
AA These Two Parameters Are Reported As A Total
AAA These Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Determined At This Time.

NT = Not Tested For

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DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg	P-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations: refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

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assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

P-final
D-draft
L-listed for regulation
P-proposed (Phase II draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

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Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11. 1 day
12. 10 day
13. Longer term

The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.

70-KG Adult

14. Longer term

As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.

15. RfD

Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.

16. DWEL

Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)

17. Lifetime

Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

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18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
  Group B consists of two sub-classifications:
    B_1 - limited human evidence but sufficient animal evidence
    B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
** - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
*** - guidance
\+ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

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ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single componeqt pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE		DEFINITION	INTERPRETATION
OLD	NEW		
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 1A

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/ probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

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D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NR" if the analyte is not required to be analyzed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

Rw3

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10-10-89

Recipient Information: NON RESPONSIVE [redacted]

Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number IND981952831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-025; PAN: VIN0681SB
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW3/EGL11/MEF757

Action Level

☐ No Contamination
No hits above any health-related standards.

☐ Lov Level Contamination
Hits just above health-related standards.

☐ Significant Contamination
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

☑ Please check secondary maximum contamination limits for:

Aluminum		Manganese	
Copper		Silver	
Iron	✓	Zinc	

QC 014

Rw4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10-10-89

Recipient Information: NON RESPONSIVE [redacted]

Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

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U. S. EPA Identification Number IND981952831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-015 ; PAN: FIND8L5A
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW4/EGL12/MEF258

Action Level

☐ No Contamination
No hits above any health-related standards.

☐ Lov Level Contamination
Hits just above health-related standards.

☐ Significant Contamination
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

☑ Please check secondary maximum contamination limits for:

Aluminum		Manganese	✓
Copper		Silver	
Iron	✓	Zinc	

QC 014

RW5

Unknown depth

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10-10-89

Recipient Information: NON RESPONSIVE [redacted]

Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number IND 981952831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-025; PAN: FIN068I5B
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW5/EGL 13/MEF# 59

Action Level

☐ No Contamination
No hits above any health-related standards.

☐ Low Level Contamination
Hits just above health-related standards.

☐ Significant Contamination
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

☑ Please check secondary maximum contamination limits for:

Aluminum	✓	Manganese	
Copper		Silver	
Iron	✓	Zinc	

QC 014